

substantially vertical posts;

said side wall panels functioning as shear plates to tie said vertical posts together and to bear substantial loads in the plane of said side wall;

each of said side wall panels extending substantially the entire height of said side wall, and some of said side wall panels having a plurality of separate groups of perforations for ventilation and lighting formed therein, with other portions of the side wall panels being imperforate to reduce admission of airborne particulates

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said groups of perforations including a horizontal series of groups along the bottom of at least one level to provide lighting and ventilation for workers adjusting wheel chocks at the floor of the level;

said groups of perforations being spaced inward from the edges of the panel and being spaced vertically from one another in each panel.

✓
46. A railway car in accordance with claim ~~45~~ wherein each of said groups has a vertical dimension of between 6 in. and 24 in.

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47. A railway car in accordance with claim ~~45~~ wherein each of said perforations has a diameter of 5/8 in. to 1 in.

4
48. A railway car in accordance with claim ~~45~~ wherein each of said groups of perforations is substantially rectangular in shape.

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49. A railway car in accordance with claim ~~45~~ wherein each of said side wall panels comprises a steel plate having a first edge rigidly attached to one of said posts, and a second edge rigidly attached to another of said posts.

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50. A railway car in accordance with claim ~~49~~⁵ wherein each of said groups has a vertical dimension of between 6 in. and 24 in.

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51. A railway car in accordance with claim ~~50~~⁶ wherein each of said perforations has a diameter of 5/8 in. to 1 in.

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52. A railway car in accordance with claim ~~51~~⁷ wherein said groups of perforations are arranged in horizontal series.

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53. A railway car in accordance with claim ~~52~~⁸ wherein said groups of perforations are arranged in no more than four horizontal series.

¹⁰
54. A railway car in accordance with claim ~~53~~⁹ wherein each group of perforations is spaced inward from at least one panel edge by a margin of about six inches.

¹¹
55. A railway car in accordance with claim ~~54~~¹⁰ further comprising door edge protection members disposed above the groups of perforations adjacent an imperforate portion of the sidewall on at least one level.

¹²
56. A railway car in accordance with claim ~~54~~¹⁰ further comprising door edge protection members disposed between groups of perforations adjacent imperforate portions of the sidewall.

¹³
57. A railway car in accordance with claim ~~45~~¹ wherein each of said end doors has an inner edge and an outer edge;

said doors being movable between a closed position in which the doors substantially enclose an end of the car, and an open position permitting access to the interior of the car;

each of said end doors extending generally vertically

between the floor and the roof, and having a top portion which extends longitudinally inward in overlapping relation with the roof above the roof and pivotally connected to the roof.

¹⁴
58. A railway car in accordance with claim ¹³~~57~~ wherein said top portion of each end door extends approximately from the centerline of the car to the side wall of the car.

¹⁵
59. A railway car in accordance with claim ¹⁴~~58~~ wherein said top portion is substantially solid and rigid to provide security for said car by preventing persons from gaining access to the interior of said car at the upper ends of said end doors.

¹⁶
60. A railway car in accordance with claim ¹⁵~~59~~ wherein said top portion is substantially impermeable to air, to restrict airflow into said car at the upper ends of said end doors.

¹⁷
61. A railway car in accordance with claim ¹⁶~~60~~ further comprising a pair of flexible closure members, each of said flexible closure members having a first portion attached to one of said end doors, and a second portion attached to one of the side walls, to restrict airflow into said car about the outer edges of the end doors;

wherein said first portion of each of said flexible closure members is attached to the outer edge of its associated end door.

¹⁸
62. A railway car in accordance with claim ¹~~45~~ further comprising a flexible inner edge seal for restricting airflow between the end doors when they are in closed position.

¹⁹
63. A railway car in accordance with claim ¹~~45~~ further comprising a plurality of door edge protection strips attached to interior surfaces of the side walls on each level;

each of said door edge protection strips extending generally horizontally;

said plurality of door edge protection strips on each level being vertically spaced from one another and being disposed substantially parallel to one another to provide door edge protection for absorbing impacts from doors of vehicles of various sizes which may be transported in said railway car on said at least one level, each of said door edge protection strips having a plurality of recessed portions extending along its interior surface and a plurality of openings formed in said recessed portions to accommodate fasteners for attaching said door edge protection strips to the side walls of the railway car, each of said door edge protection strips comprising an extrusion made of a plastic material and having a plurality of elongated slots formed therein to accommodate fasteners for securing the door edge protection strips to the side walls of the railway car.

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64. ²⁰ A railcar in accordance with claim ¹ 45 wherein the side walls and roof of each of said car units are spaced from those of the other unit to define a gap therebetween, said railcar further comprising a flexible enclosure for covering the gap between the respective car units;

the flexible enclosure comprising one or more integral flexible members having a first end attached to said first car unit and a second end attached to said second car unit;

wherein said flexible enclosure comprises a roof member extending from the roof of the first unit to the roof of the second unit, and first and second side wall members extending horizontally from the respective side walls of the first unit to those of the second unit, said first and second side wall members being joined to said roof member;

and wherein each of said roof member and said side wall members is of a pleated configuration;